UNITED
NATIONS

TD

United Nations
Conference
on Trade and
Development

Distr.
GENERAL

TD/B/COM.3/EM.8/2
4 May 1999

Original : ENGLISH

TRADE AND DEVELOPMENT BOARD
Commission on Enterprise, Business
Facilitation and Development
Expert Meeting on Capacity Building in the Area of
Electronic Commerce: Legal and Regulatory Dimensions
Geneva, 14 July 1999
Item 3 of the provisional agenda

LEGAL DIMENSIONS OF ELECTRONIC COMMERCE

Report by the UNCTAD Secretariat

Executive Summary

This document reviews recent developments pertaining to the legal and regulatory dimensions of electronic commerce within various international organizations, including UNCITRAL, OECD, ECE, WIPO, WTO, Commission of the European Communities, ICC and APEC. Such developments range from the preparation of model laws and guidelines, standard contract provisions, rules and regulations covering certain aspects of electronic commerce, to various recommendations and proposals for future action. The document looks at the objectives and impact of some of these developments and discusses areas which are regarded as creating legal barriers to the development of global electronic commerce, such as concerns about paper-based form requirements and fragmented legislative approaches.

The document refers to a number of legal issues identified by various bodies as crucial in the evolution of electronic commerce. They include commercial law issues, security and authentication, privacy, intellectual property protection, customs and taxation, electronic payment systems, Internet content regulation, jurisdiction, dispute settlement mechanisms, liability and consumer protection. It notes, however, that not all of the issues identified are of the same nature or importance if the goal is the elimination of barriers to electronic commerce. It is suggested that priority may be given to those areas in which an international consensus has emerged on how to treat electronic commerce issues and where domestic action is necessary to foster electronic commerce.

GE.99-51608

INTRODUCTION AND SUMMARY

1. The Commission on Enterprise, Business Facilitation and Development, at its third session, agreed to convene an Expert Meeting on: "Capacity-building in the area of electronic commerce: legal and regulatory dimensions: (a) potential impact on developing countries of the legal and regulatory proposals currently being discussed in international forums; (b) capacities and policies to be considered by developing countries and the international community to stimulate the participation of smaller players (including small and medium-sized enterprises and least developed countries) in global electronic commerce."[1]

2. This report has been prepared in order to facilitate the deliberations of the Expert Meeting. It builds upon the prior UNCTAD secretariat study (UNCTAD/SDTE/BFB/1) presenting an overview of the legal and regulatory developments within various international organizations not previously discussed. It consists of two parts. Part one reviews the developments within the relevant international organizations, and part two looks at a number of policy issues and proposals identified by a number of organizations. The recommendations put forward by various bodies may need to be scrutinized so as to ascertain whether the principles they embody are equally applicable in different socio-economic environments.

---

[1] See the report of the Commission on Enterprise, Business Facilitation and Development on its third session (TD/B/COM.3/20), para. 36.

Part one

BACKGROUND

3. Recent statistics on the growth of electronic commerce demonstrate its vital importance. One recent study[2] concluded that, although electronic commerce is relatively small in today's global economy (US$ 26 billion in 1995), it is growing rapidly, and is expected to approach $330 billion in 2001-2002 and $1 trillion by 2003-2005; business-to-business transactions account for 80 per cent of total e-commerce activity today. In the United States (where statistics are most readily available), in 1995-1997 electronic commerce was equivalent to 37 per cent of US mail order catalogue shopping, but estimates are that it will quickly overwhelm US catalogue shopping. Although in 1995-1997 electronic commerce accounted for only 0.5 per cent of retail sales in the seven OECD economies, estimates are that it will rise 300 fold (to 15 per cent) by 2003-2005.

4. At present, the United States accounts for about four-fifths of worldwide electronic commerce activity. According to a study by the United States Department of Commerce, information technology industries have accounted for over one-third of the real growth in United States gross domestic product over the past three years.[3] It is anticipated, however, that as electronic commerce grows on a global level, the proportion of such activity in the United States will decrease as electronic commerce activity outside the United States increases.

5. The accessibility of the Internet makes electronic commerce on a global level a realistic possibility, and the largest impact of business-to-business electronic commerce is likely to be on small and medium-sized enterprises (SMEs). Access to market information, accessibility of new potential customers and new products, and ease of communications make electronic commerce attractive to small and medium-sized businesses. "Smaller firms may in fact benefit from the opportunities offered by electronic commerce as they are unencumbered by existing relationships with traditional retail outlets or a large sales force. They may adopt a business model that forces larger, established competitors to restructure their existing relationships... The Internet can level the competitive playing field by allowing small companies to extend their geographical reach and secure new customers in ways formerly restricted to much larger firms."[4] At the same time, however, there are significant barriers to the participation of SMEs in the global electronic marketplace. The lack of awareness of electronic commerce, the lack of suitable products and integrated systems, and the lack of a sound legal basis, combined with the newness and

---

[2]Organization for Economic Co-operation and Development, *The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda*, (1998), Chap.3, available at <http://www.oecd.org/subject/e_commerce/summary.htm >. See also US Department of Commerce, *The Emerging Digital Economy*, (1998), available at <www.doc.gov/ecommerce/EmergingDig.pdf>.

[3]US Working Group on Electronic Commerce, *First Annual Report*, November 1998, available at <http://www/ecommerce.gov>.

[4]Organization for Economic Co-operation and Development, *The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda*, p. 17, available at <http://www.oecd.org/subject/e_commerce/summary.htm>.

continued evolution of the market, the complexity and cost of electronic commerce, and uncertainty about its benefits and security, are perceived as significant barriers and obstacles to the use of electronic commerce by SMEs.[5]

6. The growth of electronic commerce should have great significance for developing countries, allowing them to participate more actively in the global economy. Indeed, some believe that information and communications technologies can serve as mechanisms enabling developing countries to "leapfrog" stages of development. A recent study found many areas in which Internet could strengthen economic policy programmes: economic research and analysis; public transparency and advocacy; professional networking; institutional networking; distance technical assistance; distance education; regional approaches; and business-oriented Internet programmes.[6] Unless, however, developing countries capitalize upon the potential benefits of information technology and electronic commerce, there remains the possibility that the emerging global information infrastructure will increase the economic divergence between developed and developing countries.

LEGAL BARRIERS

7. An important concern of many countries is that existing legal frameworks may not adequately accommodate electronic commerce, and that existing law centring on paper-based systems may prove to be a barrier to increased global electronic trade. As early as 1985, the United Nations Commission on International Trade Law (UNCITRAL) called upon all Governments to "review legal requirements of a handwritten signature or other paper-based methods of authentication on trade related documents with a view to permitting, where appropriate, the use of electronic means of authentication,"[7] a recommendation that was endorsed by the UN General Assembly (resolution 40/71, para. 5(b)). UNCITRAL nonetheless continued to monitor the area of electronic data interchange, ultimately concluding that paper-based requirements combined with the lack of harmonization in the rules applicable to electronic commerce constituted a barrier to international trade, and that uniform rules for electronic commerce were necessary.[8] In 1992, UNCITRAL embarked upon the preparation of legal rules on the subject[9] and gave its final approval to the resulting Model Law on Electronic Commerce on 14 June, 1996. The Model Law was in turn adopted by the General Assembly in December 1996.[10]

---

[5]Working Party on Small and Medium Sized Enterprises, *SMES and Electronic Commerce*, DSTI/IND/PME(98)18/REV1, available at <http://www.ottawaoecdconference.org/english/homepage.html>.

[6]USAID, *The Internet as a Tool to Strengthen Economic Policies*, 27 October, 1997.

[7]Official Records of the General Assembly, fortieth session, Supp. No. 17 (A/40/17), para. 360.

[8]See "Electronic data interchange, Preliminary study of legal issues related to the formation of contracts by electronic means: Report of the Secretary-General, A/CN.9/333 (1990).

[9]Report of the United Nations Commission on International Trade Law on the work of its twenty-eighth session, 2-26 May 1995, A/50/17.

[10]Report of the United Nations Commission on International Trade Law on the work of its twenty-ninth session, 28 May - 14 June 1996, A/51/17, Annex I.

8. In May 1998, the UNCTAD secretariat issued a study entitled "Electronic commerce: Legal considerations"[11] which reviewed many of the legal issues raised by paper-based legal rules: the requirement for a "written document", "signature" or "original", the evidential value of electronic messages, the storage of electronic messages, documents of title and negotiability, allocation of liability, validity and formation of contracts, and incorporation by reference. Many of these issues had been raised in prior studies by the United Nations Economic Commission for Europe (ECE)[12] and have been dealt with in proposed national and international instruments, the most significant of which is the Model Law on Electronic Commerce.

9. In addition to the concern about paper-based requirements as a barrier to electronic commerce, there is also concern that lack of harmonization in the rules generally applicable to electronic commerce would also result in effective barriers to trade. Areas that have been identified as involving legal issues relevant to electronic commerce include data protection, taxation, customs duties, security and authentication, intellectual property rights, liability of Internet service providers, illegal and harmful content, Internet governance (more specifically, domain names), electronic payments systems, and consumer protection.

INTERNATIONAL EFFORTS TOWARDS FACILITATION OF ELECTRONIC COMMERCE

A. UNCITRAL Model Law on Electronic Commerce

10. Continued concern about the lack of a refined legal structure for the important and rapidly growing field of electronic commerce led UNCITRAL to undertake the preparation of a set of legal principles and basic legal rules governing electronic commerce. Ultimately, in 1996, UNCITRAL completed its work and officially adopted the Model Law on Electronic Commerce (hereinafter the "Model Law").[13]

11. The main objective of the Model Law was to offer national legislators a set of internationally acceptable rules allowing a number of legal obstacles to be removed and a more secure legal environment created for electronic commerce. An accompanying "Guide to Enactment" is aimed at assisting legislators and users of electronic commerce by providing explanations and clarifications of the provisions of the Model Law.

12. The Model Law sets forth a number of key principles. The first is that of non-discrimination: information should not be denied legal effect, validity or enforceability solely on the grounds that it is in electronic form (Article 5). To give effect to this principle, the Model Law lays out rules for what constitutes the equivalent of a written document, signature and original in the electronic environment, as well as setting forth rules governing the admissibility and evidential weight of electronic messages, the retention of data

---

[11] UNCTAD/SDTE/BFB/1.

[12] "Legal aspects of trade data interchange: Review of definitions of 'writing', 'signature', and 'document' employed in multilateral conventions and agreements relating to international trade", TRADE/WP.4/R.1096, 1994.

[13] Official Records of the General Assembly, fifty-first session, Supplement No. 17 (A./51/17), para. 209.

messages, the formation and validity of contracts, and attribution. A discussion of many of the provisions of the Model Law may be found in UNCTAD/SDTE/BFB/1, paras.15-23 and 93-179.

13. Since its adoption, the Model Law has been used as a template for many countries considering an appropriate response to the issues of electronic commerce. A number of countries have recently introduced, or are about to introduce, legislation either adopting the Model Law or addressing related electronic commerce facilitation issues. Other countries have established policy working groups, in some cases in consultation with the private sector, which are working on the need for legislative changes to facilitate electronic commerce, actively considering adoption of the Model Law, preparing necessary legislation, and working on electronic signature issues.

B. UNCITRAL - Uniform Rules on Digital and Electronic Signatures

14. Upon completion of the Model Law, UNCITRAL continued its work on the preparation of legal standards that could bring predictability to electronic commerce. It decided to pursue the area of digital signatures and certificating authorities. More specifically, it was agreed that uniform rules should be prepared on such issues as the legal basis supporting certification processes, the applicability of the certification process, the allocation of risk and liability between users, providers and third parties, and the use of registries in the certification process. Although no decision was made as to the exact scope and form of the Uniform Rules, it was generally agreed that they should be consistent with the media-neutral approach of the Model Law, and not discourage the use of other authentication techniques. Moreover, it was noted that the rules would need to accommodate various levels of security and recognize the various legal effects and level of liability corresponding to the various types of services provided in the digital signature context.

15. Initial drafts of the UNCITRAL Uniform Rules adopted a "two-tiered" approach, distinguishing between electronic signatures, which are those that satisfy the relatively broad requirements of Article 7 of the Model Law, and a narrower category of signatures ("enhanced" electronic signatures) that satisfy a higher standard or that are executed according to the terms of the agreement between the parties.

16. At its February 1999 meeting, the UNCITRAL Working Group had before it two drafts: one a more detailed set of rules,[14] the other a more generic or "minimalist" set of rules.[15] It was decided that the more generic set of rules provided a better basis for discussion. The minimalist rules are limited to those requirements necessary to give effect to electronic signatures, and were intended to bridge rather significant gaps between those countries which preferred generic approaches and those which preferred more detailed rules.

17. During this Working Group meeting, there was discussion of two important underpinnings of the Model Law, namely technology neutrality and medial neutrality. Although these two principles had at the outset been adopted as principles in the drafting of the Uniform Rules, the result was a tension in attempts to address a number of signature techniques and accord specific legal effects to various types of signature techniques. As the discussions of the Uniform Rules progressed, the Working Group decided to abandon its original technology-neutral position for the moment and to concentrate instead upon the

---

[14] A/CN.9/WG.IV/WP.79.

[15] A/CN.9/WG.IV/WP.80.

use of digital signatures within a public key infrastructure (PKI), thus focusing on the obligations of the signature holder, reliance issues, and the obligations of the information certifier, as well as party autonomy. Once agreement had been reached upon those rules, the possibility of technology neutrality in the Uniform Rules would be reconsidered.[16]

C. Organization for Economic Co-operation and Development (OECD)

18. OECD has focused primarily on the economic and social impact of electronic commerce, and in 1998 issued its preliminary findings and research agenda in the area.[17] That report noted that electronic commerce transforms the marketplace, has a catalytic effect, vastly increases interactivity in the economy, is characterized by openness and expansiveness, and alters the importance of time. The report noted that the forces that drive electronic commerce will require a re-examination of the framework for conducting business and a questioning of both the efficacy of government policies pertaining to commerce and of traditional commercial practices and procedures, most of which were formed with a much different image of commerce in mind.

19. In October 1998, OECD in conjunction with the Government of Canada held a Ministerial Conference on "A Borderless World: Realising the Potential of Global Electronic Commerce", also known as the Ottawa Conference. The Ottawa Conference brought together leaders from national Governments, business, labour, consumer and social interests, and international organizations to discuss a global action plan for electronic commerce. There emerged from the Conference three action-oriented products: the OECD Action Plan for Electronic Commerce, the Report on International Bodies: Activities and Initiatives in Electronic Commerce (SG/ELECTRONIC COMMERCE(98)10/REV5), and the Global Action Plan for Electronic Commerce prepared by Business with Recommendations for Governments.[18] In addition, Ministerial Declarations were adopted regarding OECD's further work on privacy, consumer protection, and authentication, and several agreements and a work plan on taxation issues were concluded.

20. Because electronic commerce is global in nature, it was necessary to develop cooperative approaches to the development of electronic commerce policies and activities. To this extent, the OECD Ministers, and other parties, concluded that:

- Electronic commerce offers the potential for increased economic growth and development worldwide;
- Cooperation amongst all players (Governments, consumers, business, labour, and public institutions) must be encouraged in policy making, and actions should strive to be internationally compatible;
- Governments should promote a pro-competitive environment that would allow electronic commerce to flourish, work to reduce and eliminate unnecessary barriers to trade, and act to ensure adequate protection of key public interest objectives;

---

[16]For detailed information on the work of the UNCITRAL Working Group, see document A/CN.9/457.

[17]See *The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda*, available at <http://www.oecd.org/subject/e_commerce/summary.htm>.

[18]Documents from and general information about the Ottawa Conference may be found on its website at <http://www.ottawaecdconference.org.>.

- Government intervention, when required, should be proportionate, transparent, consistent and predictable, as well as technologically neutral;
- Governments should recognize the importance of industry standard setting and enhancing international inter-operability within an international voluntary and consensus-based environment;
- Businesses should continue to play a key role in developing solutions to electronic commerce issues.

21. Specifically with regard to legal frameworks, the OECD Conference concluded that legal frameworks should be established only where necessary, should promote a competitive environment, and should be clear, consistent and predictable.

22. The OECD Action Plan for Electronic Commerce[19] is organized along four main thematic lines: building trust for users and consumers, establishing ground rules for the digital marketplace, enhancing the information infrastructure for electronic commerce, and maximizing the benefits of electronic commerce. The areas of priority include privacy, authentication, consumer protection, taxation, access to infrastructure, and socio-economic impact.

23. Specific declarations were adopted on (i) Protection of Privacy in Global Networks, (ii) Consumer Protection in the Context of Electronic Commerce (urging the OECD to complete its ongoing work to draft effective "Guidelines for Consumer Protection in the Context of Electronic Commerce"), and (iii) Authentication for Electronic Commerce. In addition, a report was received on "Electronic Commerce: Taxation Framework Conditions", setting out principles for taxation of electronic commerce. In the context of the Declaration on Authentication for Electronic Commerce, the Ministers urged, among other things, a non-discriminatory approach to electronic authentication from other countries and amendments to technology- or media-specific requirements in current laws or policies that may impede electronic commerce, "giving favourable consideration to the relevant provisions" of the UNCITRAL Model Law.

24. In preparation for the Ottawa Conference, a background paper was prepared on small and medium-sized businesses (SMEs) and electronic commerce.[20] According to that report, the most significant barriers and obstacles for SMEs to greater participation in the global electronic marketplace are a lack of awareness of electronic commerce, uncertainty as to its benefits for their business, security concerns, lack of suitable products and integrated systems for using the Internet, the complexity and cost of electronic commerce with regard to the banking system, its early stage of developments, set-up costs, lack of knowledge, and lack of a sound legal basis.

D. United Nations Economic Commission for Europe (ECE) - Centre for the Facilitation of Procedures and Practices for Administration, Commerce and Transport (CEFACT)

25. In 1995, ECE adopted a contractually based model electronic data interchange agreement for parties using EDI (the Model Interchange Agreement for

---

[19] SG/EC(98)9/REV5.

[20] Working Party on Small and Medium Sized Enterprises, *SMEs and Electronic Commerce*, DSTI/IND/PME(98)18/REV1, available at <http://www.ottawaoecdconference.org/english/homepage.html>.

the International Commercial Use of Electronic Data Interchange).[21] In the light of developments since then, the Legal Working Group of CEFACT is currently proposing a revised model contract for more general use in electronic commerce operations. This approach recognizes the need for a framework of basic provisions to be agreed upon by business entities, as well as acknowledging the flexibility required to conduct day-to-day commercial transactions. The Electronic Commerce Agreement, referred to as the "E-Agreement", is intended to serve the commercial requirements of business-to-business electronic commerce partners and addresses all forms of electronic communications used in electronic commerce. It provides a basic set of provisions which can ensure that one or more electronic commercial transactions, or "E-Transactions", may subsequently be concluded by commercial partners within a sound legal framework. Commercial partners engaged in contractual relations based exclusively on EDI are advised to continue to use the EDI Interchange Agreement. Commercial partners engaged in contractual relations based on the use of a combination of electronic commerce technologies including EDI are advised to use the E-Agreement and, to the extent necessary, replace the use of an EDI Interchange Agreement with the E-Agreement.

26. The Legal Working Group has also been working to revise and update an inventory of international trade conventions and agreements[22] which contain references to "signature", "writing" and "document". The Legal Working Group is considering a recommendation that UNCITRAL consider the action necessary in respect of the changes to the international trade conventions and agreements identified in the revised inventory. It is further exploring the feasibility of developing a convention covering electronic commerce legal issues, working together with UNCITRAL and other relevant bodies.

E. World Intellectual Property Organization (WIPO)

27. The World Intellectual Property Organization is paying particular attention to the implementation of trademark, copyright and patent protection safeguards in electronic commerce. More specifically, WIPO is closely examining the impact of electronic commerce issues on the sectors of film, publishing, multimedia, and information technology. Examples of its work in this area include the WIPO Copyright Treaty and the Performances and Phonograms Treaty; work is also continuing in the areas of patents, trademarks and databases.

28. One of WIPO's main tasks in the area of electronic commerce is to resolve the issue of domain name disputes, a critically important area given the often contentious relationship between domain names and trademarks. WIPO has launched an international process to develop recommendations concerning the intellectual property issues associated with Internet domain names, including dispute resolution. The recommendations resulting from the WIPO Internet Domain Name Process will be made available, to the Internet Corporation for Assigned Names and Numbers (ICANN), a new organization that has been formed to manage the Internet Domain Name System.

29. The WIPO Arbitration and Mediation Center has developed an Internet-based, on-line dispute resolution system that can provide a neutral, speedy and cheap means of resolving disputes arising out of electronic commerce without the

---

[21] The Commercial Use of Interchange Agreements for Electronic Data Interchange, Recommendation No. 26, adopted by the Working Party on Facilitation of International Trade Procedures, Geneva, March 1995, TRADE/WP.4/R11133/Rev.1.

[22] TRADE/WP.4/R.1096.

physical movement of persons or things.[23] Although developed particularly for disputes concerning domain names, trademarks, and intellectual property disputes more generally, the system offers the advantages of the swift and inexpensive resolution of any international commercial disputes arising out of electronic commerce.

30. In recognition of the fact that, with the remarkable worldwide expansion of the Internet, electronic commerce is of major economic and policy importance, WIPO has developed a programme to focus on intellectual property rights and their role in maintaining a stable and positive environment for the continuing development of electronic commerce. Three regional consultation meetings on intellectual property and electronic commerce are planned in Africa, Asia and Latin America in 1999 in order to generate greater awareness of the ways in which electronic commerce is affecting intellectual property and to assist in formulating a timely and swift response to those issues. These meetings are to be followed by a major international conference in Geneva from 14 to 16 September, 1999. The WIPO Conference on Electronic Commerce and Intellectual Property will address the impact of electronic commerce on intellectual property and will include plenary sessions on developments in electronic commerce at the technology, business and policy levels, as well as workshops which will deal, on a practical level, with intellectual property and related areas. Proposed topics range from the impact of electronic commerce on intellectual property (jurisdiction, enforcement and dispute resolution) and electronic delivery of publications to developing countries and electronic commerce.[24]

F. World Trade Organization (WTO)

31. Although WTO has only recently begun to consider Internet trade as a global trade issue, various WTO bodies are now examining the trade-related aspects of electronic commerce within the framework identified for the "Work Programme on Electronic Commerce," adopted by the General Council in September 1998 (WT/L/274). The range of WTO disciplines that could affect electronic commerce is broad, involving services, intellectual property, goods, government procurement, TRIPS and technical barriers to trade.

32. In March 1998, WTO released a study on "Electronic Commerce and the Role of the WTO.[25] The study noted that, while in 1991 there were fewer than 5 million Internet users, by the turn of the century there are likely to be more than 300 million,and the value of electronic commerce is likely to reach US $300 billion. The study emphasized the extraordinary opportunities that electronic commerce offers, particularly to developing countries, but noted that improving access to the necessary infrastructure and user skills is necessary if these opportunities are to be realized. Among the policy issues identified by the study are the legal and regulatory frameworks necessary for Internet transactions, security and privacy questions, taxation, access to the Internet, market access for suppliers, trade facilitation, public procurement, intellectual property questions, and regulation of content.

---

[23] See <http://arbiter.wipo.int/>.

[24] For the provisional agenda, see <http://ecommerce.wipo.int/conferences/program/program.html>.

[25] Available at <http://www.wto.org/wto/ddf/ep/public.html>.

33. At a ministerial conference in May 1998, WTO adopted a Declaration on Global Electronic Commerce[26] proposing a full examination of all trade-related issues concerning global electronic commerce. The Declaration noted the importance of the economic, financial and development needs of developing countries, and recognized the work being undertaken in other international fora. The Declaration also reaffirmed member States' current practice of not imposing custom duties on electronic transmissions. WTO's position is that just as member countries do not impose customs duties on telephone calls, fax messages, e-mail, or computer links when they pass national boundaries, they should not impose customs duties on electronic transmissions over the Internet.

34. Over the past year, WTO's continuance of its no-customs-duties policy on electronic commerce has resulted in further growth in the use of the Internet as a global market. Indeed WTO believes that the growth in international trade conducted over the Internet is due in part to the fact that nations have not erected new barriers to impede business on the Internet, and it encourages its members to formally adopt policies that permanently refrain from imposing any taxes in the future.

35. In September 1998, WTO's Director-General gave a noteworthy address in Berlin on e-commerce issues, "Building the framework for a global electronic marketplace".[27] He described electronic commerce as a crucial new way of buying, selling and distributing goods and services, which are forms of trade currently covered by multilateral trade rules-- specifically, the General Agreement on Trade in Services (GATS). New negotiations may be needed, however, to extend the rules into the electronic environment. The great significance of GATS is that it provides for binding and compulsory dispute settlement for trade disputes. Rules concerning the physical infrastructure of the Internet already have been partially addressed by the WTO's Basic Telecommunications Agreement. Likewise, telecommunication products have been covered by the WTO's Information Technology Agreement.

G. Commission of the European Communities

36. The European Commission has been one of the most active of all international organizations in developing directives and policies in the area of electronic commerce. Under its TEDIS (Trade Electronic Data Interchange System) programme,[28] it has studied and published several reports on the legal status of electronic commerce in its member States, prepared a European Model EDI Agreement, and done studies on the recognition within member States of digital and electronic signatures.

37. In early 1998, it released a report on "The Need for Strengthened International Coordination".[29] The report noted the "numerous initiatives and regulatory actions at national and regional levels" but observed: "These activities are not always coordinated and sometimes reveal divergent approaches. Ill-adapted or fragmented regulation, however, will hinder the development of the "on-line" economy from which business and citizens have much to gain... The

---

[26]Available at <http://www.wto.org/anniv/ecom.htm>.

[27]Available at <http://www.wto.org/speeches/oslo.htm>.

[28]See UNCTAD/SDTE/BFB/1, paras. 80-86.

[29]COM (98) 50, available at <http://www.ispo.cec.be/eif/policy/com9850en.html>.

wide range of activities possible can only be fully exploited if an international enabling framework emerges."

38. In May 1998, the Commission issued a Proposed Directive on a Common Framework for Electronic Signatures.[30] In its explanatory memorandum, the Commission stressed the basis for the proposed directive. First, it noted the need for a harmonized legal framework to avoid barriers to electronic commerce within the common market. Second, it concluded that any directive should be technology-neutral, and not focus solely on digital signature technologies. Third, in order to ensure development of the market and of the technology, "prior authorization" or licensing schemes were to be avoided. Fourth, contractual freedom should be recognized. Fifth, legal recognition of electronic signatures and certification services, particularly cross-border, was deemed of extreme importance. Last, industry should take the lead in developing internationally agreed standards for electronic signatures.

39. In 1997, the Commission set out its approach to electronic commerce in "A European initiative in electronic commerce",[31] announcing the creation of a legal framework for the internal market based on the principle of country of origin control. The initiative stressed the importance of a favorable regulatory framework as the basis for the development of electronic commerce, and set forth several proposals for creation of such a favorable climate. In November 1998, the Commission issued a proposal for a "European and Council Directive on certain legal aspects of electronic commerce in the internal market".[32] Following on the suggestion in the Initiative that barriers to electronic commerce be identified to allow for the creation of such a framework, the proposal noted that differences in legal rules applicable to information society services (or third party information service providers) effectively created barriers to electronic commerce. In essence, the proposal would establish a coherent legal framework for information society services involved in electronic commerce in the European Union. Under this framework, any information society service established within the EU that complied with the laws of its country of origin would be assured of the ability to offer its services throughout the European Union without having to comply with the laws of all member States. In essence, single market concepts of free movement of services and freedom of establishment would be applicable.

H. International Chamber of Commerce (ICC)

40. As noted in UNCTAD/SDTE/BFB/1, the International Chamber of Commerce has created an Electronic Commerce Project which replaces the old E-100 project and includes three working groups on electronic trade practices, information security, and E-terms. The primary thrust of ICC has been to develop a self-regulatory framework for electronic commerce, and to that end ICC has produced several work products for use by the business community.

41. The first such product are the ICC Revised Guidelines on Advertising and Marketing on the Internet.[33] The Guidelines, which apply to all marketing and

---

[30] COM(1998) 297 final, available at <http://www.ispo.cec.be/eif/policy/com98297.html>.

[31] COM(97) 157 final, 16 April 1997.

[32] COM(1998) 586 final, available at <http://www.ispo.cec.be/ecommerce/legal.htm#legal>.

[33] ICC Document No. 240/394 Rev. 3, available at <http://www.iccwbo.org/Commissions/Marketing/Internet_Guidelines.html>.

advertising activities on the Internet for the promotion of any form of goods or services, set standards of ethical conduct to be observed by all advertisers and marketers to increase the public's confidence in marketing in the interactive media, to safeguard advertisers' freedom of expression, to minimize the incentive for governmental regulation, and to meet reasonable consumer privacy expectations. Key provisions require disclosure of the identity of the advertiser, full disclosure of all costs and responsibilities associated with electronic sale and marketing, and restrictions on collection and use of personal data.

42. A second major project undertaken by ICC is the formulation of the General Usage for International Digitally Ensured Commerce (GUIDEC).[34] The GUIDEC provides a set of common definitions and business-generated best practices for certifying and "ensuring" electronic commerce. It applies to the use of public key cryptography or digital signatures and the use of trusted third parties or "certifiers". It builds upon the UNCITRAL Model Law, providing a framework for use by parties in electronic commerce, as well as a framework for further development of issues.

43. A more recent project within ICC is its "E-terms" project. The E-terms service is conceived as an on-line repository of shorthand terms (like ICC's INCOTERMS) which parties may use in conducting their electronic transactions. The repository will contain all the tools that are necessary to compose contracts on-line and conduct electronic transactions with a minimum of legal risk. Rules and terms of different kinds that might apply in the digital environment can be incorporated into electronic contracts by referring to a unique identifier automatically supplied by the E-terms repository. A prototype of the repository and service is expected to go "live" in 1999 for a year-long testing period among a group of volunteer users. E-terms will be especially useful for small and medium-sized enterprises that do not have their own in-house legal expertise or the resources to fully negotiate the terms in electronic transactions.

44. ICC's Electronic Trade Practices Working Group is creating a set of foundation rules for electronic trade and settlement. Its objective is to "make trade more efficient by not only adapting rules to new technologies and media such as the Internet, but by taking advantage of these new tools to streamline trade transactions". These rules will provide guidance to buyers and sellers in different parts of the world for conducting their negotiations, making contracts, and arranging for finance, transport or insurance on-line.

I. Asia Pacific Economic Cooperation Forum (APEC)

45. The Asia Pacific Economic Cooperation Forum is devoted to promoting open trade and economic development among the 21 Pacific rim countries. At the November 1997 APEC Ministerial and Leaders' Meeting in Vancouver, the APEC leaders directed that a work programme on electronic commerce be created that would develop a predictable and consistent environment enabling all APEC economies to reap the benefits and foster the growth of electronic commerce. In February 1998, the Ad-Hoc Task Force on Electronic Commerce was established (co-chaired by Australia and Singapore) to manage this work programme.

---

[34]Available at <http://www.iccwbo.org/guidec2.htm>.

46. APEC's Electronic Commerce Task Force[35] has been charged with the implementation of the APEC Blueprint for Action on Electronic Commerce.[36] The work programme includes: identifying impediments to SME utilization of electronic commerce; identifying the economic costs that inhibit increased uptake of electronic commerce, including those imposed by regulatory and market environments; establishment of a virtual multimedia resource center; work on paperless trading; and addressing the year 2000 (Y2K) issue.

47. The APEC Blueprint for Action on Electronic Commerce also identified five key guiding principles. First, the business sector should play a leading role in developing electronic commerce technology, applications, practices and services. Second, the role of Governments is to promote and facilitate the development and uptake of electronic commerce by providing a favourable environment, including the legal and regulatory aspects, which is predictable, transparent and consistent, and promotes trust, confidence and efficiency. Third, for electronic commerce to flourish, business and Governments should cooperate wherever possible to ensure the development of affordable, accessible and inter-operable communication and information infrastructure. Fourth, while recognizing that some degree of government regulation may be necessary, technology-neutral, competitive market-based solutions which can be safeguarded by competition policy, and effective industry self-regulation should be favoured. And last, government and business should co-operate to develop and implement technologies and policies which build trust and confidence and which address such issues as privacy, authentication and consumer protection.

---

[35]See <http://www.dfat.gov.au/apec/ecom/index.html>.

[36]Available at <http://www.dfat.gov.au/apec/ecom/ecom_blueprint.html>.

Part two

POLICY CONSIDERATIONS

48. There are a number of prerequisites for creating an environment conducive to the development of electronic commerce. They include: (a) a modern telecommunication infrastructure, by means of which electronic commerce can take place; (b) a supportive information infrastructure, involving the acquisition and development of the appropriate software and other information products which contribute to the backbone of global electronic communications; (c) a human resource infrastructure and the education of the business community as to the benefits and potential uses of electronic commerce, as well as the training of the workforce to take advantage of those benefits; (d) a legal and policy infrastructure which is conducive and supportive of electronic commerce (which is the focus of this document). In this regard, it is instructive to note that the international organizations and public or private sector entities that have studied electronic commerce from a variety of perspectives have tended to focus on certain common elements that would be present in any favourable legal environment.

49. The first major theme that emerges is that of minimalist legislation: Governments should not over-regulate; the concern is that attempts to control, restrain or channel electronic commerce developments will hamper the ability of businesses to adopt those technological applications that are best for their activities, prevent innovation in terms of both technology and business implementation models, and hamper the development of the market place. For example, the Internet Law and Policy Forum has published a number of surveys of developments in electronic commerce and digital signature legislation.[37] In its initial survey,[38] it concluded that the electronic authentication trend was toward legislation which (a) at a minimum, enables electronic commerce by recognizing that the primary objective of electronic authentication is the removal of barriers associated with traditional writing and signature requirements, and (b) establishes evidentiary presumptions in favour of electronic signature use based on security and trustworthiness standards. Similarly, at the October 1998 meeting of OECD on electronic commerce, a comprehensive inventory of electronic authentication legislation and policies in the OECD countries was issued, followed by the adoption of a Declaration on Authentication for Electronic Commerce. The principles set forth in the Declaration generally encourage electronic authentication policies that minimize government regulation, support technological neutrality, and recognize party autonomy.

50. In addition, the principle emerges that any legislation should be technology-neutral: that to the extent possible all modes of electronic communication and authentication should be recognized and supported. Although the theme of "technology neutrality" is heard most often in the debates surrounding the legal effect of electronic and digital signatures, the concept is a broader one: the law should not, through the adoption of rules peculiar to one type of technology, block innovation and preclude development of newer methods. A further related principle frequently articulated is that of party autonomy: the parties involved in electronic commerce should be able to determine, between themselves, the rules and standards applicable to their business relationship.

---

[37] Their studies are available at <http://www.ilpf.org/digsig>.

[38] Available at <http://www.ilpf/digsig/survey.htm>.

51. Numerous legal issues have been identified by various bodies as crucial in the evolution of electronic commerce. The 1997 Framework for Global Electronic Commerce issued by the United States administration identified the following critical areas involving legal aspects: customs and taxation, electronic payment systems, electronic commercial law, intellectual property protection, privacy, security, telecommunications infrastructure and information technology, content. The 1998 report of the European Commission, in emphasizing the need for strengthened international cooperation, highlighted these legal issues: jurisdiction, liability, taxation, copyright, authentication, encryption, data protection, content, and consumer protection. OECD's report lists privacy, consumer protection, authentication, taxation, and access to infrastructure as among important areas for its consideration. WTO's list includes security, privacy, taxation, access, trade facilitation, public procurement, intellectual property, content regulation, and the legal framework for Internet transactions. Trans Atlantic Business Dialogue has focused on five priority areas: protection of personal data and privacy; digital signatures and a harmonized legal framework; encryption; tax, tariff, and customs; and intellectual property protection and associated liabilities.[39] The Global Internet Project has identified these areas: taxation and customs; uniform international commercial law principles; intellectual property protection; security; privacy; content regulation; and import and export restrictions.[40] Last, the World Bank has issued a study which looks at the impact of the information revolution on developing countries and the need for such countries to create an "information-friendly environment, characterized by coherent telecommunications reform and information policies; laws protecting investment, intellectual property, and individual privacy; open and well-regulated information and communication markets; education policies that favor a skilled labor force; and effective regulatory and standard-setting institutions". [41]

52. Not all of the identified issues are of the same nature or importance if the goal is elimination of barriers to foster electronic commerce. Some of these issues, including privacy, informational content, and consumer protection issues, are directed more to the protection of the public interest than support and facilitation of electronic trade. In addition, there is currently no consensus (either within countries or internationally) on a common approach in these areas. In other areas, the issues are more of policy than of law. For example, while it is important to consider the impact of the tax regime of a country on the willingness of people to do business there (electronically or by traditional means), the choice of tax regimes is not primarily a legal one; there is, however, an emerging consensus on how these tax issues should be addressed which is similar to the approach taken on other issues: do not take steps to tax or regulate that are in any way different from the current approach to trade.

53. The key for developing countries may be to identify: (i) those areas in which an international consensus has emerged on how to treat electronic commerce issues; (ii) those areas where domestic action is absolutely necessary to foster

---

[39] *See* Trans Atlantic Business Dialogue, Final Communique from the 1997 TABD Meeting, available at <http://www.iep.doc.gov/tabd/final.htm> and excerpted at <http://www.ecommerce.gov/tabd/htm>

[40] Global Internet Project, *Framework for Electronic Commerce on the Internet*, 27 October, 1997, available at <http://www.gip.org/gip4f.htm>.

[41] Eduardo Talero and Philip Gaudette, *Harnessing Information for Development: A Proposal for a World Bank Group Strategy* (March 1996), available at <http://www.worldbank.org/html/fpd/harnessing/ >.

an environment favourable to electronic commerce; and (iii) those areas where it is possible for developing countries to resolve the legal issues in an expedited manner. If a particular area falls into these categories, then it would appear to be expedient to act with respect to that particular issue. For example, the area of commercial law and electronic commerce is one frequently identified as an important area to address in adapting to electronic commerce. UNCITRAL has produced a Model Law which is minimalist in approach, represents an international consensus, and is adaptable to countries with different legal traditions. The Model Law represents a balance between public policy on security and freedom of parties to decide how to authenticate. A country wishing to revise its commercial laws to make them more accommodating for electronic commerce can easily take advantage of this resource. Similarly, intellectual property protection is crucial in the development of electronic commerce; developing countries should seriously consider such international instruments as the Berne Convention and the WIPO treaties in this field. As the World Bank noted: "The information revolution has increased the complexity of intellectual property issues. Research in industrialized countries suggests that increased protection of intellectual property generates research and development activity sufficient to offset the social costs of limited monopolies. For developing countries, similar research is proposed along with measures to strengthen the protection of intellectual property."[42]

54. Developing countries have a big stake, as well, in helping shape the emerging international consensus in all these areas within various international fora. To this end, cooperation and coordination among countries with similar problems and concerns is critical to ensure that, ultimately, all voices are heard in these international fora.

55. Furthermore, developing countries may wish to give consideration to those elements of a legal structure which are critical components of a vibrant economic marketplace - whether that market place be in cyberspace or otherwise. Fair and effective dispute resolution mechanisms, for example, are an indispensable ingredient in all types of commerce. Similarly, customs, import and export restrictions need to be revisited to assess their impact on international trade in general and electronic commerce in particular.

56. The global electronic commerce marketplace is here to stay; the challenge for developing countries is to ensure that they become active and equal participants.

---

[42] *Ibid.*